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ENGINEERING NEWS-RECORD

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NEWS ISSUE—FEBRUARY 12, 1948

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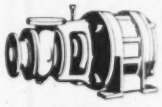

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News of the Week

ENGINEERING NEWS-RECORD • FEBRUARY 12, 1948 • VOLUME 140 • NUMBER 7

President asks extension of $500,000,000 road aid

Congress told that condition of our highway system and rapid increase in traffic calls for a continuation of road building at a high annual rate

Authorization of an expenditure of $500,000,000 for Federal aid to highway building during the fiscal years 1950 and 1951 was asked of Congress on Feb. 9 in a special message from President Truman. The President said that existing authorizations would be substantially committed by the end of this year.

Because of the early exhaustion of the money authorized under the Federal Aid Highway Act of 1944 and the fact that most state legislatures will meet early in 1949, the President recommended prompt action on new authorizations so that the states could plan their road work in an orderly fashion. Funds authorized at this session of Congress for the fiscal year 1950 would become available Jan. 1, 1949.

Mr. Truman's fund request was parallel in intent to three highway measures introduced in Congress several weeks ago (*ENR* Jan. 22, vol. p. 96) which also sought extension of Federal monetary participation in highway planning and construction.

Highway needs rising

In recent years, the President said, "Our highway construction has not kept pace with the growth in traffic. When the War came, we sharply curtailed the highway building program, limiting ourselves to a minimum program of repair and permitting improvement and new construction only where urgently necessary for war purposes. After the War ended, construction was necessarily delayed still further as a result of shortages of material and high costs.

"On the other hand, the volume of business in the United States has grown more than 50 percent since 1940. This is reflected in the fact that we are now using one-third more trucks, which are carrying heavier loads and traveling more miles. There are also about 1,000,000 more automobiles in use now than there were in 1941, despite the fact that the production of automobiles for civilian use was discontinued during the War. In all there are nearly 3,000,000 more vehicles on the road than before the War.

"By any reasonable standard our highways are inadequate for today's demands. Future demands will inevitably be greater as business traffic continues to expand, as our population grows, and as we build roads to reach needed resources now relatively inaccessible.

"Furthermore, we must reconstruct important stretches of road which were not built to carry heavy traffic safely and at reasonable speed. Modern automobiles, heavier trucks, greater pleasure and commercial travel, all increase the need to improve our highways as a means of lowering the present shocking total of highway accidents.

"To build the highways that will meet these needs will require continuous effort over a long period of time and on an extensive scale. For the immediate future, we must limit expenditures to avoid excessive costs resulting from overtaxing the capacity of the construction industry and to avoid inflationary pressure on the national economy. But we can and must continue to rebuild and modernize our highways where their present obsolescence results in excessive safety hazards and wasteful maintenance costs and where present traffic capacity is most seriously inadequate.

"The program I am recommending now is a conservative one, necessary to maintain prudently our investment in highways. When conditions permit in the future, we should plan to accelerate our progress toward a highway system adequate to carry our expanding agricultural and business traffic, to accommodate with safety and speed the personal travel of our people and to meet the needs of our national security."

Legislation to give effect to the President's recommendations is being prepared in the office of the Federal Work's Agency.

Award $14 million VA hospital jobs

The main contracts for two general hospitals being built by the Corps of Engineers for the Veterans Administration were awarded last week for low bids totaling more than $14,000,000.

General contract for a 200 bed hospital at Fort Wayne, Ind., was awarded to Gus K. Newberg, of Chicago, on his bid of $4,682,000. At the same time, the Army announced that Peter Kiewit & Associates, Olson & Johnson, and Chas. H. Tompkins Co., and Morrison-Knudsen, Boise, Idaho, as a combination were awarded a $9,818,000 contract for a 500-bed hospital at Omaha, Neb.

As these awards were made, both the engineers and the Veterans Administration announced dates for bids on other projects.

The VA said that it would open bids on a 200-bed general medical hospital which it is building at Saginaw, Mich., on March 16. Other openings scheduled by VA on jobs handled by its own forces include: a 564-bed addition to the neuro-psychiatric hospital at Lebanon, Pa., Feb. 10, and a 150-bed addition for tuberculosis patients at the hospital in Portland, Ore., on Feb. 24.

The Corps of Engineers announced the following dates for opening of bids on structures it is carrying forward for the VA:

A 475-bed hospital at Wilkes Barre, Pa., Feb. 17; 200-bed project at Erie, Pa., March 25. The New York District of the Corps said that it had asked for bids on the construction of a 1000-bed hospital in Newark, N. J.

NEWS IN BRIEF

In telegraphic form, here are latest news developments on the engineering and construction front during the week.

Public Construction — The State Building Commission of *Alabama* has allocated $1,843,773 for projects at state institutions of higher learning and $500,000 for a central livestock coliseum at Montgomery . . . Application for $1,500,000 in federal funds to finance a third of the erection cost of a teaching hospital, *Charleston, S. C.*, has been asked by the Medical College of the state . . . A $24,500,000 building program for state institutions has been approved by the State Board of Higher Education in *Oregon* . . . President G. D. Stoddard of the University of Illinois, *Urbana*, will ask the Illinois General Assembly for $70,000,000 for new buildings . . . Governor Youngdahl of *Minnesota* has received from a hospital survey committee a recommendation for a $25,000,000 hospital construction program over a 5-year period.

Industrial Construction—Plans are ready for a shopping center in North Highlands, a section of *Fort Wayne, Ind.*, as part of a $3,000,000 community center development by George A. Poag & Associates . . . Corry-Jamestown Mfg. Co. will build a $1,000,000 plant to make metal office furniture at *Corryn, Pa.* . . . A $1,000,000 construction program at its *Sioux Falls, S. D.*, plant has been announced by John Morrell & Co.

Highways — The Board of Pierce County Commissioners at *Tacoma, Wash.*, will offer a compromise proposal to the Chicago bonding firm of A. C. Allyn Co. in an effort to finance reconstruction of the $14,000,000 Tacoma Narrows bridge . . . A survey to determine feasibility of a $20,000,000 toll highway from *Charleston, S. C.*, to *Savannah, Ga.*, is expected to start soon . . . Last year the 43-mile Merritt Parkway in *Connecticut* received $1,000,000 in toll charges . . . A farm-to-market road program proposed in the Florida general assembly would provide the additional paving of between 1,500 to 1,800 miles of secondary roads . . . The Pennsylvania Turnpike between Harrisburg and Pittsburgh did a record business of $2,885,018 in the six months ended Nov. 30, 1947.

Housing — The Canadian government reports that 75,000 houses were started in *Canada* last year . . . A $1,000,000 development including 400 homes and a shopping center will be built along the Du Pont parkway near *Farnhurst, Del.*, by the Wildel Corp. . . . Work has started on a $1,000,000 apartment house at *Clearwater, Fla.* . . . Gov. R. F. Bradford of Massachusetts has advocated a $200,000,000 program of construction for 20,000 small rental apartments for veterans, to be backed by state credit and a state subsidy up to $3,000,000 a year . . . The Home Insurance Co. has let a contract for an apartment development in *Philadelphia, Pa.*

W. W. Colpitts heads consultant engineers

At a recent meeting of the council of the American Institute of Consulting Engineers, Walter W. Colpitts of Coverdale & Colpitts, New York City, was elected president. Other new officers elected were:

W. W. COLPITTS

Ezra B. Whitman, consulting engineer of Baltimore, Md., vice president; Leslie G. Holleran of Clarke, Rapuano & Holleran, New York, treasurer, and Rear Admiral R. E. Bakenhus, (CEC, USN, Retired.) secretary. The council consists of G. J. Esselen, Boston, Mass., A. G. Syska and R. H. Tatlow, III, New York.

Seek "teeth" for B.C. registration law

The use of injunctive power to bar unregistered engineers from practice in British Columbia is sought in a proposed redraft of the provincial engineering profession act.

The present act gives legal status to the Professional Engineers Association of British Columbia to act as the licensing authority in the province, and sets out regulations covering this and the fields of work restricted to members. It provides, however, only for criminal action against individuals accused of ignoring the legislation.

The redraft—to be submitted to the provincial legislature this spring—will seek to place the responsibility for the employment of qualified men on the employer, by inclusion of a provision for civil court action against those using unregistered engineers for work specificially set out as within the domain of members of the Professional Engineers Association. The association has been reluctant to take criminal action against unregistered men, especially in borderline cases of municipally-employed men whose integrity and practical standing are above reproach, but who are not technically qualified.

Under terms of the new act, employers for the first time would be subject to civil action for violations. Additionally municipal councils and village commissioners would be compelled to employ professional engineers for laying out, directing and supervising construction of public works, and could not employ the old-time "municipal engineer"—who was often a well-trained practical man but lacked professional qualification because he failed to meet the educational standards required.

Considerable opposition is expected from the union of British Columbia municipalities, when the bill reaches the legislative floor.

THE COVER PICTURE

As one of the steps in a series of acceptance tests, the world's largest crane, recently completed at the San Francisco Naval Shipyard, lifted a 630-ton load, believed to be the heaviest crane lift ever made. The crane was built for repair of major fleet units of the Navy, and is rated at 504 tons. The 630-ton lift was a 25 percent overload. A detailed description of this crane appeared in *ENGINEERING NEWS-RECORD*, Dec. 25, 1947, vol. p. 878.

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California pushes clean-stream drive, calls halt to raw sewage discharge

State cites 22 communities for failure to comply with orders—Oregon, New York, Pennsylvania report progress

The California Board of Public Health last week ordered 22 communities to cease discharging raw sewage into state streams, in a move to force lagging action on sewage treatment works ordered nearly two years ago.

The action in California was one of a series of moves reported during the week as several states intensified their drives to end stream pollution.

Citing municipalities for their "unsatisfactory progress" in planning and constructing sewage treatment works, the California board called attention to its order of March 11, 1946, halting issuance of permits for discharging raw sewage into streams and coastal waters. Under terms of this order, all existing permits were to be revoked as of January 1, 1947.

The 1946 order affected some 77 communities, according to Frank M. Snead, chief of the division of environmental sanitation, and although most of these still continue to discharge raw sewage, they have given satisfactory evidence of progress toward correcting the condition.

Among the communities cited was San Francisco, where, the board said, facilities to treat discharges from the south side of the city are lacking. Answering this charge, Ralph Wadsworth, San Francisco city engineer, told the board that the city is doing all it can to solve the problem, with the scheduled award of $10,000,000 worth of contracts next month.

Other action

Other stream pollution action included:

The Oregon State Sanitary Authority said it had made progress in solving river pollution problems after a recent conference with representatives of municipalities and executives of four pulp and paper manufacturing companies. However, the board ordered four cities—Milwaukee, Myrtle Creek, West Salem and Albany—to file reports of progress on sewage treatment plants, or face citations to appear before the authority.

Paper manufacturers, officials said, reported that fiber waste pollution had been virtually eliminated by new screening and straining practices, but admitted inability to find a practical method for sulphite liquor disposal, other than through the streams. The authority voted to require the mills to submit regular reports on the quantity and quality of chemical and other wastes going into the rivers, along with statements on experimental corrective work undertaken.

A two-year-old anti-pollution study designed to clean up New York State's rivers and lakes is due to be completed soon with the adoption of a program of action. A 26-man legislative committee on pollution abatement will seek to draw new legislation to make for a more effective anti-pollution program; approve a model municipal pollution code that can be passed on to cities and villages for local action, and is now considering an invitation extended to New York State to join the New England interstate water pollution compact.

Pennsylvania costs up

In Pennsylvania, officials disclosed that the state's share of the proposed clean-up project for the Schuylkill River would cost about $30,000,000 rather than $15,000,000 anticipated by the 1945 legislature. The federal government has agreed to clean up the Schuylkill from Norristown to Fairmount Dam in Philadelphia, provided the state stops the discharge of silt and culm into the stream and dredges the bed from the headwaters to Norristown. Actual dredging work is scheduled to begin in the upper river in July.

In Indiana, the State Stream Pollution Board denied a petition by the city of Decatur asking a year's extension on start of work on a $670,000 disposal plant. The board had first ordered the city to build a disposal plant on or before October 1, 1945, but annual extensions have been granted since that date. The board said last week that the city has not proceeded "expeditiously" in complying with the order, while city officials claim that other civic projects hold priority over the disposal plant.

Army uses Canol pipeline to carry diesel oil

Activation of an idle section of the Canol pipeline between Whitehorse, Canada, and Big Delta, Alaska, has been authorized by the Department of the Army. This will provide the necessary link to permit pipeline movement of diesel oil for military consumption from Skagway to Fairbanks.

The section between Whitehorse and Big Delta represents the center portion of a line extending from Skagway where oil shipped by tankers from West Coast ports is unloaded for transportation. Sections between Skagway and Whitehorse and between Big Delta and Fairbanks were rehabilitated last year. Operational control of the section will be under the Alaska District Engineer.

At present, oil for military consumption at Fairbanks is carried by rail from the ports at Whittier or Anchorage.

Honored by Moles—Charles B. Spencer (center), president of The Moles—New York society of tunnel and heavy construction men—does a cross-handed "shake" with Lt. Gen. Raymond A. Wheeler, Army Chief of Engineers (left) and William A. Durkin, president of the Walsh Construction Co. General Wheeler and Mr. Durkin were selected by the society to receive its two annual awards for outstanding contributions to construction progress. Occasion was the group's annual award dinner Feb. 4 in New York City.

DEVELOPMENTS BEYOND U. S. BORDERS

Digested from reports by Engineering News-Record correspondents and the McGraw-Hill World News Bureau

Australia plans spending $99 million for airports—Argentina opens Trans-Andes railway—Announce definite plans for Inter-American Sanitary Engineering Congress—Other foreign news

Australia—The Commonwealth Department of Civil Aviation has budgeted $99,000,000 for airport and radio navigation facilities.

The sum is to be spent over a 5-year period, and the largest part of the money will be absorbed by expansion of existing airports. Australian-made equipment will be used to a large degree.

One of the major jobs will be expansion of Essendon Airdrome, one of the world's busiest ports, near Melbourne. The north-south runway, 4,800 ft. long by 150 ft. wide, is now nearly complete. An east-west runway, the longest in the project, will be 6,100 ft. long by 200 ft. wide.

Other airport work will include Sydney, Perth, Canberra and other major communities.

The Australian airport program was one feature of many transportation programs announced by nations outside of the United States.

Argentine government officials said that the first train on the new international railroad across the Andes will be operated on Feb. 20.

The 900-kilometer rail line—known as "El Trasandino del Norte"—was started in 1905, and after many interruptions, completed this year. It connects the northern Argentine city of Salta with a Chilean railroad line that terminates at the Pacific port of Antofagasta. Construction of the "Trasandino" involved 23 tunnels, 35 bridges, 13 viaducts and 320 culverts, and cost a total of about $32,500,000. The line furnishes a sea outlet for meat, timber and farm products of northern Argentina.

In France, railway engineers noted that in addition to rebuilding no less than 1,850 bridges and 65 tunnels since the war and the replacement of 2,800 miles of track, they have completed other dramatic reconstruction. For example, 600 dwelling units for employees were completed, and 4,200 more were put under construction. A new type of standardized roundhouse, with a radius of 217 ft. and an exterior height of 42 ft., built of concrete and with 75 percent of its outside surface in glass, has also been developed.

At Rome, Italy, the old central railroad station, known for many years as the "Termini"—is now being torn down to make way for a new structure. Initial work on the new station, started in 1938 and interrupted by the war, has now been re-started and it is expected that the new $4,000,000 station will be completed in about two years.

Cities Plan . . .

Brazil—The city of Sao Paulo commissioned the engineering firm, Cia. Geral de Engenharia S/A, of Rio de Janeiro, to study and prepare a project report for a rapid transit system long under consideration by the municipal government.

The company is headed by Luiz Oscar Taves, and the work will be under the general direction and supervision of Gustav A. Amberg, consulting engineer. The Knappen Engineering Co. of New York is associated in the work with the Brazilian company, and has assigned E. E. Halmos, general consultant; Richard de Charms, project engineer; Zusse Levinton, chief structural engineer, and Benjamin Levine, structural engineer, to the work. Consulting engineers include Ole Singstad, John E. Delaney, former chairman of the New York Transit Authority, and Gerald Cruise of the New York State Power Authority.

One of the considerations for the system is a subway system for the city.

Australia—The Maritime Services Board of New South Wales is now reconstructing three berths in Sydney Harbor to serve as terminals for modern liners, with particular emphasis on passenger handling requirements. The principal feature of the redesign will be the division of facilities to handle passenger traffic and cargo movements on different deck levels not only on the pier itself but also by providing two-level approaches.

Mexico—Ten thousand model homes for workmen, to cost a total of $1,125,000, will be built at Tlalnepantla, just over the border of the Federal District (Mexico City).

At Acapulco, a Pacific Coast resort

***Spectacular Viaduct**—The Longeray viaduct which carries a single-track railroad line over the upper Rhone River has been rebuilt in spectacular fashion in reinforced concrete. Three girders, 189 ft., 224 ft. and 175 ft., respectively, rest on two central masonry piers 206 ft. high. The old piers, partially destroyed by wartime demolition, were replaced with hollow concrete piers and the three arches are of the same type of "tube" structure. All members are heavily reinforced, especially the deck girders, each of which extends the length of a complete span. The hollow girders are 9.5 ft. high and about 21 ft. wide, with an interior longitudinal rib of 2.1 ft. thickness.*

that is a popular vacation spot for North Americans, city officials are planning a $2,050,000 program of public works to include a coastal highway, waterworks, paving, an open air theater and a general hospital.

Puerto Rico—Jorge J. Jimenez, Commissioner of the Interior of Puerto Rico, has announced that a contract has been let to the Coughlin Crosby Corp. of New York City to make a study of the dredging of Aguadilla harbor and construction of necessary harbor works.

Technology . . .

Mexico—Mexico's first technology institute, at Chihuahua City, will be started soon, according to Aaron Merino Fernandez, Subsecretary of Public Education.

The federal government has budgeted $619,500 for construction of the school. Similar schools are planned for each of Mexico's 28 states.

Chile—The Chilean Section of the Inter-American Association of Sanitary Engineering has announced definite plans for the First Inter-American Sanitary Engineering Congress. The meetings will be held at the University of Chile, in Santiago, from April 8 to 14, inclusive.

The meeting was postponed some months ago when the local section was unable to make final arrangements quickly enough.

Sponsoring agencies of the congress include the Chilean Section, the Chilean Ministry of Public Works and the Ministry of Public Health, the Pan American Sanitary Bureau, and the Institute of Inter-American Affairs.

The congress will follow the pattern of the two preceding regional meetings, held in Rio de Janeiro, Brazil, and Caracas, Venezuela, in 1946, and attendance will be drawn not only from sanitary engineers, but from public health and public works officials of all the American republics.

Among important matters to be placed on the Congress' agenda is the establishment of the Inter-American Association of Sanitary Engineering on a permanent basis. During the last year, the association has functioned in an interim status through a temporary advisory committee and an acting secretary.

The Inter-American Association of Sanitary Engineering, 2,001 Connecticut Ave. N. W., Washington 8, D. C., will handle information for U. S. citizens and organizations planning to take part in the meeting.

U. S. consultants get Brazil airport

Brazil—A detailed study for new airport facilities at Sao Paulo will be made for the Sao Paulo state government by the Ibec Technical Services Corp. —according to Wallace K. Harrison, New York architect who is president of the corporation.

Ibec Technical Services is a recently formed organization to provide foreign countries with technical services in fields of public works and economic development. It is a subsidiary of International Basic Economy Corp. —an enterprise headed by Nelson A. Rockefeller, which is engaged in joint commercial enterprises designed to help raise the standards of living in foreign lands. At present, its activities are confined to Latin America.

The Sao Paulo Airport study, which is expected to be completed within 10 months, will include a master plan adequate for the long-range needs of the area. It will provide for construction in sections, original facilities providing for immediate needs and additional elements being added as traffic increases. The master plan will show location of runways, taxiways, loading aprons, administration building and other necessary structures and roads and parking strips, and will provide for full instrument aircraft operations. In addition, the plan will provide cost estimates and a financial prospectus.

Carrying out the study for Ibec is C. B. F. Brill, who has already made a preliminary report on the project on which the stategovernment is already acting to provide emergency service.

Mr. Brill, an architect, has varied experience as an engineer. He was project engineer on the Triborough Bridge in New York City, was associated with the construction of the New York World's Fair, and, as a member of the firm of Downer, Green and Carillo, worked on the design and financing of New York City's airport at Idlewild.

Dr. N. C. Grover retires from Geological Survey

Dr. Nathan Clifford Grover, who has served in hydrology and water resource investigations in the U. S. Geological Survey for 40 years, has retired, Secretary of the Interior J. A. Krug has announced.

This is the second time within five years that Dr. Grover has left the government service, the first having been in 1939 when he retired as chief hydraulic engineer of the Survey. In August 1942 he was recalled to correlate the war-service activities of the Survey.

Dr. Grover entered government service in 1903 when he took charge of surface water investigations of the Geological Survey for the New England region at Bangor, Me.

Dr. Grover studied civil engineering at the University of Maine where he received his bachelor's degree in 1890 and the degree of civil engineer in 1897.

Budget item for start of TVA steam plant

An item of $4.000,000 to begin construction of a $54,000,000 steam generating plant at New Johnsonville on Kentucky Lake in Middle Tennessee is contained in the budget for TVA which President Truman sent to Congress recently.

The first of three units, each capable of producing 125,000 kw., is scheduled to go into operation in the fall of 1951.

Minnesota communities launch housing bodies

Five Minnesota communities have launched municipal housing authorities, while seven others have reached the advanced planning stages, according to Minnesota Housing Director Stuart Rothman.

In a report on progress of Minnesota's new housing redevelopment and slum clearance law, Rothman said more and more communities are indicating an interest in what he termed "sound housing of a permanent nature." Under terms of the law, municipalities are authorized to set up local housing and redevelopment authorities empowered to undertake slum clearance and obtain funds from federal housing programs.

Rothman said the following cities are now ready to function:

Minneapolis—Authority is working with city planning commission and city engineer to locate sites for projects.

St. Paul—Authority is making application for federal funds.

Hibbing—Authority organized.

Albert Lea—The first authority organized in the state. Already has $400,000 FHA-financed low cost rental housing project on the drawing boards.

Duluth—Mayor George W. Johnson has named members and final city council approval is expected soon.

In Winona, International Falls and South St. Paul, chambers of commerce are on record as favoring authorities and will ask city councils to vote them into existence, Rothman said.

ARBA names officers hears planning ideas

J. T. Callaway seated for second term as president of American Road Builders Association

J. T. Callaway, assistant to the vice president, Goodyear Tire and Rubber Co., Chicago, was re-elected president of the ARBA for 1948 and H. C. Whitehurst, director of highways for the District of Columbia, re-elected treasurer at the annual meeting in Washington, Jan. 26-28 (*ENR* Feb. 5, vol. p. 165).

Three regional vice presidents returned to office are: Paul B. Reinhold of Atlas Equipment Corp., Pittsburgh, Charles W. Smith of Smith Engineering and Construction Co., Pensácola, Fla., and W. A. Roberts, vice president, Allis-Chalmers Mfg. Co., Milwaukee, Wis. T. E. Stanton of the California Department of Public Works, Sacramento, is the new vice president of the western district.

Jennings Randolph, former Congressman from West Virginia and now with Capital Airlines, Washington, D. C., was elected president of the Airport Division.

In the contractors' division, Donald O. White of the American Asphalt Paving Co., Chicago, was re-elected president for 1948, and Nello L. Teer, Jr., of Nello L. Teer Co., Durham, N. C., vice president.

Counties choose Collier

Ben T. Collier, engineer of Coahoma County, Clarksdale, Miss., was elected president of the county highway officials' division.

New president of the municipal division is J. B. Wilson, director of public works, Louisville, Ky. He succeeds **G. M. Shepard**, city engineer of St. Paul.

A. J. Thelen, executive secretary of the Wisconsin County Boards Association, Madison, was chosen 1948 president of the American Institute of Local Highway Administration. Four new vice presidents are: Howard S. Bussard, president of the Minnesota County Highway Engineers Association, Marshall, Minn.; Leo C. Hammett, county supervisor at Modesto, Calif.; Judge E. C. Grindstaff, president of the County Judges and Commissioners Association at Ballinger, Tex.

The manufacturers' division will hold its regular election of officers in July concurrently with the road show.

In his annual report to the conference, President Callaway said that advance commitments by equipment manufacturers indicate over 1,000,000 sq. ft. of exhibition space will be occupied at the Road Show to be held in Soldier Field, Chicago, July 16-24.

Among the technical papers not covered in the earlier report of the ARBA meeting was the following on aerial mapping.

To get the maximum benefits on construction and related work from photo mapping and soil studies by aerial methods, a state system of plane coordinates should be used, B. E. Beavin of the J. E. Greiner Co., Baltimore, told the planning division. In using aerial photographs a scale of 1 in. equals 1,000 ft. has proven helpful and when planning new highways or major relocations strip maps made to a scale of 1 in. equals 200 ft. are satisfactory, he stated. In planning and surveying work for the Washington-Baltimore freeway the plans were coordinated on a statewide system that will permit re-establishment of monuments and other markers at little cost, he further revealed.

Discussion from the floor on Mr. Beavin's paper revealed that 18 states have adopted state coordinate systems and that this number is expected to increase greatly in the next few years.

By adoption of a 20-year road construction program and use of a highway zoning ordinance, Virginia expects to save large costs over the next several years, Raymond V. Long, director of the Virginia State Planning Board, stated. The $422,000,000 long-range program calls for construction of 1,492 miles of 4-lane road at an estimated per-mile cost of $118,000; 3,017 miles of 2-lane heavy-duty road at $46,000; over 2,700 miles of 2-lane heavily travelled local road at $27,000; and nearly 1,600 miles of 2-lane lightly travelled road at $19,000.

J. T. CALLAWAY
re-elected ARBA president

PERSPECTIVE . . . .

Industrial Construction Outlook

Industrial construction has a very bright prospect of continuing its present boom-time business through the rest of 1948.

But in 1949 the story may be very different. Factory building could fall off badly due to the lack of new plans.

According to a survey of American business, conducted by the economics staff of the *McGraw-Hill Publishing Co.* with an eye toward expenditures in the next two years, manufacturers in general will continue their spending for construction and capacity expansion in 1948 at almost the same rate as in 1947. But by the end of the current year, nearly 85 percent of all planned expansion will have been completed—and business will end up with production capacities far in excess of anything previously possible.

Less than 40 percent of all businessmen have made any definite plans for 1949—but of these 45 percent will spend less than they will in 1948, 30 percent will spend about as much, and only 25 percent will spend more on construction.

With greater capacity to produce competition on a pre-war scale will reappear. But with less construction, hence less purchasing of heavy goods, a downward spiral might start.

Major point in the uncertain picture for 1949, economists say, is the apparent tightening of business capital for financing continued expansions. Most businessmen report that the 1948 capital expenditures are being financed out of current profits and past savings, but almost all these funds will be used up when the year ends. For this reason, it is likely that in 1949 companies wishing to make further investments in capital improvements must approach the capital markets and commercial banks for funds.

Under present tax laws, economists pointed out, these money-markets are likely to remain tight, thus constricting the necessary initial flow of funds for construction.

Should further expansion halt, the economists pointed out, the general expansion of the U. S. economy will also halt.

Courts bar owners' fight on airport

In rulings seen as possibly establishing national legal precedents, two Ohio courts recently held that an airport development is a public necessity and cannot be blocked by opposition of adjoining property owners.

Decisions of the Ninth District Court of Appeals at Akron and the Eighth District Court of Appeals at Cleveland were parallel. In both cases the objections of property owners who contended that planes using airports trespassed on their property and caused nuisance in the matter of noise and fear to property owners, were disallowed in the interests of public necessity.

At Akron, the court held that a 450-acre flying field, operated by a private corporation west of the city, may be operated "as a legitimate and necessary business." The court held that whatever inconvenience is caused to the home owners by noise, dust, or fear will be offset by community gains in the development of aviation. The ruling reversed a lower court opinion that the field would be a nuisance and that planes flying from it would trespass on home owners' property.

Cleveland decision

The Cleveland ruling was in favor of the development by Cuyahoga County of the Richmond Road airport, despite opposition by east suburban residents. Affirming a Common Pleas Court decision of last March, the reviewing court found no cause for intervention against the county administration and agreed that to deny the county the power to provide safe and adequate facilities for air travel would be "repugnant to basic concepts of sovereign powers."

The Cleveland case was initiated by a property owner against the county commissioners and Curtiss-Wright, Inc., from whom the county had purchased the airport. Flying from the field had been stopped by federal injunction granted in 1932 and still in force. The court held that county ownership of the airport brought into play the law of eminent domain, and said that this law overrides any previous zoning ordinances, extinguishes all previous rights and establishes a new title.

Since the existing injunction was issued against the former owner—whose title is no longer valid—the terms of the federal order no longer apply, the court decided. The original injunction sustained home-owners' contentions that low-flying planes were a menance and a nuisance.

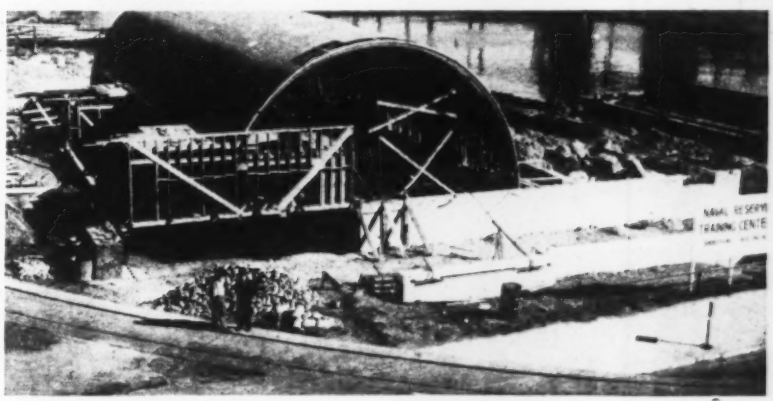
Navy armory plan to cost $11 million

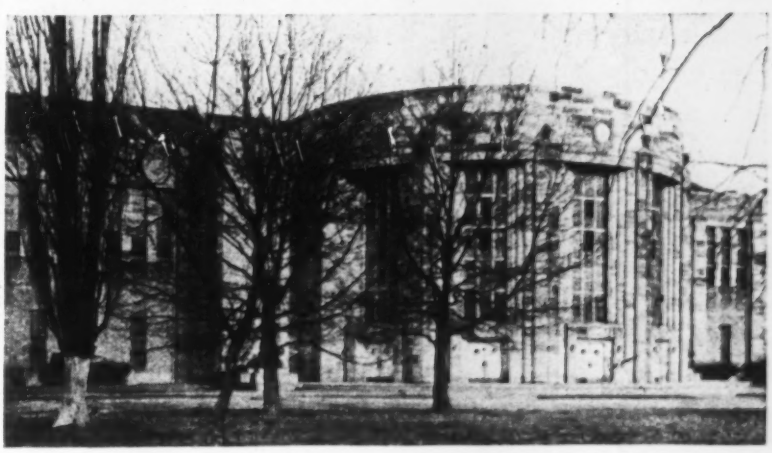
The Navy's Bureau of Yards and Docks will undertake an $11,000,000 construction program during 1948 to provide some 150 armories for use of the Naval Reserve. The installations will provide new or expanded facilities in both inland and seacoast cities.

A great part of the work will consist of remodeling and rehabilitating existing structures for use by naval reserve units which total about 750,000 officers and men who are eligible for additional training in naval practices (*ENR* Sept. 18, 1947, vol. p. 371).

The bureau plans a total of 429 construction projects in 300 cities, to cost a total of nearly $36,000,000 over a several year period. About 60 percent of this program was in various stages of completion late in 1947, including 140 new armories built of the Navy's Quonset and other style huts, developed during the war. New armories remaining to be built include one at Burlington, Vt.; Middletown, Conn.; Stamford, Conn.; Jersey City, N. J.; Yonkers, N. Y.; Bethlehem, Pa.; Rome, Ga.; Oklahoma City, Okla.; Jackson, Miss.; Knoxville, Tenn.; Memphis, Tenn.; Nashville, Tenn.; Houston, Tex.; Port Arthur, Tex.; Natchez, Miss.; and Montgomery, Ala.

Also to be built are 12 new armories in the ninth naval district, including structures at Peoria, Ill.; Springfield, Ill.; Fort Wayne and Indianapolis, Ind.; St. Paul, Minn.; St. Louis, Mo.; Cincinnati, Cleveland, Columbus, Lorain and Steubenville, Ohio; and Madison, Wis. The eleventh naval district will build three new armories, at Burbank, Pasadena, Calif.; and Las Vegas, Nev. Two projects are listed for the twelfth district—one at Sacramento, Calif., and the other at San Jose, Calif. The thirteenth naval district will build armories at Salem, Ore. and Eugene, Ore.





***Typical** of the work scheduled in the Navy's $11,000,000 armory program are these two structures. The masonry building was built at Toledo, Ohio by the WPA, and will be altered to accommodate naval reserve units. The Quonset-type building is located at Sheboygan, Wis.*

HIGHLIGHTS OF MUNICIPAL DEVELOPMENTS

Summarizing current activities in city engineering and construction throughout the country.

Street, traffic worries continue as major problem for cities —Philadelphia curtails 1948 improvement program spending— Sewer, water system improvements announced—St. Louis gets proposal for 1953 world's fair

Although they have been battling the problem of traffic congestion since the end of the gasoline rationing brought a rising flood of vehicular traffic to the streets, city officials seemed no nearer a complete solution last week than they were two years ago.

It was not for lack of trying. Almost every community had spent money and time in surveys and for making plans, every police authority had attempted to solve the problem by regulation.

The solutions reported last week ranged from a $6,000,000 superhighway at Boston, to a report that parking meters have weathered a decade of use and are still going strong as both revenue-producers and traffic regulators.

The Boston superhighway would be a one-mile, six-lane elevated and street-level express route to link the Sumner Tunnel with the new Logan International Airport and McLellan Highway in East Boston—a main route to the northeast. A state project, the roadway will be designed to fit into an eventual network of highways connecting with New Hampshire and Maine highways. Other express-road developments included action by the Baltimore, Md., city council to provide $100,000 in planning funds for the first section of a crosstown expressway; completion of plans for a $320,000 project to make a divided highway out of U. S. 91 leading north out of Salt Lake City, Utah; and the announcement that plans for a multimillion dollar improvement program for Akron, Ohio, are rapidly taking shape.

Birmingham, Ala., was informed the state highway department would let contracts in April for a $1,500,000 overpass on First Avenue; Sioux Falls, S. D., considered plans for additional parking space around its municipal airport; Milwaukee, Wis., tried out its first one-way street combination to speed traffic along principal longitudinal trafficways; and Columbus, Ohio, officials announced that a $3,752,000 program of street maintenance and reconstruction—largest in the city's history—was now ready for bids.

Voters of Harris County (Houston) Texas, approved by a scant margin an additional $3,000,000 bond issue to finance unexpectedly high costs of constructing a vehicular tunnel under the Houston ship channel.

And the International City Manager's Association, reporting on a survey of 20 cities, said parking meters were still looked on with favor as profit-making and traffic regulating instruments.

Curtail spending

Although Philadelphia, Pa., had planned to spend $75,000,000 on city improvements during 1948, it will cut that schedule down to about $37,000,000, Mayor Bernard Samuel told city councilmen. He indicated that rising costs of administering the city government, and increased construction costs dictated the move.

Present plans for the revised program will be put before the electorate at the next municipal election, when voters will be asked to approve a loan of $37,500,000—which will bring the city to just $2,450,000 under its legal borrowing capacity.

The improvement program will include construction of hospitals and health centers, drainage and flood control systems, extension of the Market St. subway, and garbage reduction plants and incinerators.

Water problems

Toledo, Ohio, found it had unconsciously aided in the establishment of what amounted to a number of private water companies, to highlight developments in water problems that included requests for higher rates, and programs for waterworks expansions.

A check of the city's metered area showed that many householders in older sections of the city have been drawing water through meters attached to other houses, and because of low meter minimums, have received their water virtually free. Others were receiving water from metered homes, and paying the meter-users fees for the water. Councilmen suggested a program of installing meters in every home.

Other developments included:

The Indianapolis, Ind., water company filed a petition with the Indiana Public Service Commission asking for an increase in water rates for large

***Baltimore Airport**—Recently approved designs for a $3,000,000 terminal administration building at Baltimore's new Friendship Airport will produce a "T" shaped structure, featuring a consolidated ticket and baggage office and the use of only three loading docks for all airlines using the field. The airport is being designed by the Baltimore firm of Whitman, Requardt-Greiner Company and Associates, consulting engineers for the Baltimore City Department of Aviation.*

consumers to cover increases in operating expenses and plant investment; West Palm Beach, Fla., authorized its officials to purchase the facilities of the privately-owned West Palm Beach Water Company; Durham, N. C., sold bonds to finance $1,750,000 of improvements to its water system; Huntington, Indiana, engaged engineers to survey its 40-year-old water system and suggest improvements; and Tulsa, Okla., voters overwhelmingly approved a bond issue to finance $15,000,000 worth of waterworks and system improvements.

Port work

The Boston, Mass., Port Authority announced that Merritt, Chapman and Scott Corp., of New York City, was low bidder at $1,549,000 on construction work on the proposed new $3,000,000 Hoosac ship terminal at Charlestown. Bids were for piling, construction of pier deck, track wells, and some dredging.

At San Diego, Calif., the city harbor department announced it had completed revised plans and specifications for the 10th Avenue Pier—on which it was forced to withdraw specifications some months ago because of a typographical error. The $1,600,000 pier will be 1,100 ft. long and 600 ft. wide.

World's fair

A formal proposal to stage a world's fair in St. Louis, Mo., in 1953 was presented to members of the St. Louis Section of the American Society of Civil Engineers, by Stratford L. Morton, chairman of the executive committee of groups sponsoring the exposition.

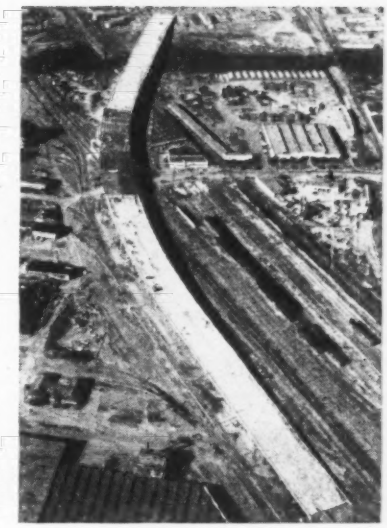
A proposal to use one of the city's parks as a site for the fair has already been discussed by the city council, and brought forth considerable opposition on the ground that any restriction on the use of public property is illegal.

The year 1953 would be the 100th anniversary of the Louisiana Purchase.

New Orleans terminal

A huge new union passenger terminal and the accompanying grade separation program to eliminate interference of railroad trains with other surface transit will cost the city of New Orleans about $37,000,000, according to George A. Heft, consulting engineer.

Mr. Heft presented his statement at a recent hearing before an Interstate Commerce Commission examiner to determine whether ICC will approve the city's terminal program. The program would include construction of the terminal building itself, the filling in of the lower basin canal as an additional right-of-way for railroads, and the construction of numerous grade separation structures around the terminal center.



H. J. Kaiser Co. photo

***Freeway Link**—A 2,554-ft. overpass in Oakland, Calif., will be one of the links in the 70-mile Eastshore Freeway that will skirt the eastern shore of San Francisco Bay between Oakland and San Jose. Costing $2,000,000, the overpass is 80 ft. wide to carry six lanes of traffic and was built with a more than 70 deg. skew. Stolte, Inc., of Oakland, and Duncanson-Harrelson Co., San Francisco, were joint contractors. Contracts for other sections of the freeway are expected to be let after June 30.*

Various tunnel plans

Ole Singstad has been employed by San Francisco, Calif., to plan a $5,000,000 4-lane tunnel under Russian Hill, a project to be financed by a bond issue voted in last November's election.

The tube will provide a main traffic artery from the city's Embarcadero to Van Ness Ave., providing an outlet for its congested financial district.

Singstad will study the advisability of making the tunnel a high or low level project, a twin or single bore. He estimated that eight months would be required to complete plans for the tunnel and an additional two years for construction.

The engineer was advisor to the Army-Navy board which recently selected a southern site for a second San Francisco Bay crossing and was consulting engineer for the Posey Tube under the Oakland estuary.

The Pennsylvania Department of Highways will ask bids in March for construction of twin vehicular tunnels to carry the Penn-Lincoln Parkway under Squirrel Hill in Pittsburgh. The project will involve 4,200 ft. of tunnels plus some of the approaches. Each tube is to accommodate two lanes of traffic.

The Sumner Tunnel under the harbor at Boston, Mass., ended the year 1947 with a surplus of about $539,000—a gain of about $10,000 over last year, according to the Boston Public Works Commission.

Total revenue for the tunnel was about $1,759,000, and total expenses were about $1,219,000.

Honolulu sewers

Opening the first major unit in a proposed $23,000,000 sewage system improvement program (*ENR* July 17, 1947, vol. p. 87) the city of Honolulu is now asking bids on about 6,000 ft. of 4x6 ft. tunnels, 2,000 ft. of 42 in. pipe, six manholes, seven special manholes and appurtenances.

For what is believed to be the first time anywhere, the city department of public works has included construction drawings in the same 8½x13 in. book in which the general specifications are contained.

Restore beaches

Preparing to open bids on a beach erosion prevention project that will include nearly 1,000,000 cu. yd. of sand placed by hydraulic fill, Atlantic City, N. J., found last week that it must construct a number of timber groins to hold the fill.

The engineers of the navigation division of the state department of conservation advised city officials that it had approved a $125,000 appropriation for building eight 300 ft. groins. City officials said that at least seven dredging firms had already taken out specifications preparatory to bidding on the restoration project.

Chesapeake City bridge

The lower of two bids received for construction of the 3,990-ft. superstructure of the Chesapeake City, Md., high-level bridge was submitted by the American Bridge Co. in the amount of $1,861,000. Col. F. F. Frech, Philadelphia district engineer, announced last week.

The only other bid received was from the Bethlehem Steel Co. at $2,152,000. The completed structure will provide a two-lane highway across the Chesapeake and Delaware canal at Chesapeake City, Md.

Seek RFC aid to finance Tacoma Narrows Bridge

Closely following its recent failure to get bids from private investors for financing the $14,000,000 Tacoma Narrows Bridge (*ENR* Jan. 8, vol. p. 24) the Washington State Toll Bridge Authority said last week it would ask the Reconstruction Finance Corporation to finance the full cost.

Since the RFC's action is not certain, and because the contractors' bids to build the bridge must be acted upon by March 15, the authority is proceeding with an alternate plan of financing that envisages a new call for bond bids to be opened in March. An earlier survey recommended a $10,000,000 bond issue, which the state then believed would cover construction costs. When the lowest construction bid totaled $11,196,584, investment houses refused to buy the bonds.

The Toll Bridge Authority expects the new survey will show that the $14,000,000 can be amortized from tolls and revenues.

The Agate Pass bridge

Obstacles to the construction of another toll bridge, across Agate Pass from Bainbridge Island to the Kitsap Peninsula, apparently were overcome when the Navy agreed to lower its requirements for vertical clearance and the Puget Sound Navigation Co.—which now operates ferry lines in Agate Pass—agreed to abandon its plans.

A controversy developed when the ferry company, objecting to the state's failure to show speed in preparing the bridge plans, announced it would build the $1,000,000 bridge (*ENR* Jan. 1 vol. p. 5). The new span would enable the company to consolidate its ferry routes and reduce costs. The Navy had ruled out a bridge with a vertical clearance of less than 200 ft. over Agate Pass, but recently removed that restriction.

Lt. Gen. L. R. Groves asks Army retirement

Lt. Gen. Leslie R. Groves, engineer officer who was wartime commander of the Manhattan Project, announced last week that he has applied for retirement from the Army.

General Groves, now chief of the Armed Forces Special Weapons Project and a member of the Military Liaison Committee to the Atomic Energy Commission, also holds the title of assistant to the Chief of Engineers.

He said he had asked for retirement effective Feb. 29 next, and planned to enter private business.

To rebuild wrecked dam in Fraser Valley, B. C.

As soon as weather permits, rebuilding of a flood-breached, earth-filled dam in British Columbia's Fraser Valley will be undertaken by the town of Mission, 45 miles east of Vancouver.

The dam, integral part of the town's $100,000 Cannel Lake water project, gave way in mid-December before floodwaters created by fast melting of 8 in. of snow in one evening plus a weekend of heavy rain. The overflow carried away several sections of new water pipe installations as the water poured down the creek bed, which drops about 300 ft. in a distance of 55 ft.

The dam can be rebuilt by use of original material left on the site when it was completed last autumn. The structure was 100 ft. wide, 12 ft. high.

Before the washout, approximately $43,000 had been spent on the water project.

$8 million hospital center planned for Ohio

The Ohio State General Assembly has appropriated $8,000,000 for construction of a 600-bed hospital on the campus of Ohio State University at Columbus, to be known as the Ohio State University Medical Center.

Plans for the structure have been prepared by Skidmore, Owings and Merrill, of Chicago.

Name engineer to head Ohio highway bureau

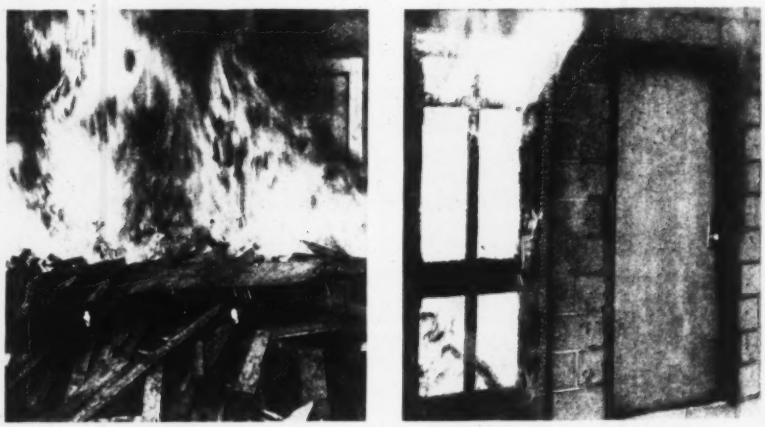
Earl R. Reeb, Hicksville, Ohio, who has been chief of the Bureau of Maintenance of the Ohio Highway Department for the last year, has been appointed state highway director, succeeding Murray D. Shaffer, who resigned recently.

A civil engineering graduate of Ohio Northern University, Mr. Reeb has been an active civil engineer for 26 years. He joined the state highway department in 1921, and remained with it through 1945, when he became county engineer for Defiance County. He resigned that post in January, 1946, to rejoin the highway department.

Refer Boston snow snarl to M.I.T. conference

Conferences are under way at Massachusetts Institute of Technology, Cambridge, Mass., to discuss faster methods of removing snow from the streets of Boston and the entire state of Massachusetts. The problem was being studied when Mayor James M. Curley of Boston, in a letter to President Karl T. Compton, proposed that the accumulation of snow be attacked with war-time flame throwers.

Flame throwers have been used by the Army Signal Corps for melting snow, but were not available immediately.



***Fire Test**—While the ordinary wood door burned through in 20 min., a 1¾-in. thick door of "sandwich" construction, qualified for a 1-hour rating in tests conducted recently at South River, N. J. Manufactured by U. S. Plywood Corp., the "sandwich" door (at extreme right above) has standard hardwood faces and cross-bonding laminated to an incombustible core with waterproof glue. The core is a rigid insulating material made from lime, silica and asbestos and has a coefficient of heat transfer of 0.47 BTU per sq. ft. per in. thickness per hr. per deg. at a mean temperature of 300 deg. F. and will be produced by American Structural Products Co., a subsidiary of Owens-Illinois Glass Co., which developed the core.*

Uphold Arizona law banning closed shop

State supreme court denies labor charge that act is unconstitutional —Other labor developments

The Arizona Supreme Court Feb. 4 upheld the constitutionality of the state's "right to work" law, adopted after a state referendum in 1946.

The court action was the second in which a state court upheld the provisions of statutes that ban the closed shop. Recently (*ENR* Oct. 16, 1947, vol. p. 507), a Nebraska district court declared a similar law there to be constitutional.

The Arizona legislation was attacked by the American Federation of Labor organization, which announced that it would make this law a test case on which to base its decision on some fourteen other similar state measures adopted during 1946 and 1947.

The court rejected a contention by the labor organization that the act deprived unions and employers of freedom of contract, substituted class legislation and restrained civil rights of assembly and speech.

"Evidently, the people of Arizona determined that in the public interest the weapons which labor might use in obtaining its ends required further restrictions," the court decision said.

Other labor news

While the state courts began to take action on local laws restricting labor practices, other developments in the general labor picture included:

A clarification from the office of Robert Denham, general counsel of the National Labor Relations Board, on its plan for area elections as the solution of the union shop problem in the building construction industry.

As forecast by this journal (*ENR* Jan. 8, vol. p. 26), the NLRB will attempt to designate a number of areas in which groups of employers habitually contract with labor organizations. An analysis will be made of the employment among the electrical, plumbing, bricklaying, general contractors and others to determine those who have been working for these employers in the past year. Some processes of elimination would take out the itinerant casual workers.

Such a procedure would result in designating some 600 or 700 areas in the United States.

Elections then would be held among each craft group in each area to determine union representation to deal with the contractors groups.

In Warren, Ohio, where union carpenters recently voted not to ask for a wage increase, in the hope that other building crafts would follow their lead, they found themselves without support among the labor group. A check with representatives of the sixteen other construction industry crafts represented in the city shows that none of them plans to halt their demand for higher wages. The carpenters said, however, that they will give their plan at least a 90-day trial before making any decision on the merits of their unusual action.

Court denies NLRB writ in Ebasco boycott case

A federal court in New York City last week denied an injunction to end what the National Labor Relations Board called a secondary boycott against an engineering company engaged by Ebasco Services, Inc.

Federal Judge Simon H. Rifkind in New York denied an NLRB petition to enjoin the Metropolitan Federation of Architects, Engineers, Chemists and Technicians, CIO, from engaging in acts against the Project Engineering Company.

The board has charged the union with violation of a secondary boycott provision of the Taft-Hartley Act in setting up a picket line at the company's offices after that company had received new work from Ebasco Services, Inc., where a strike had been in progress for several weeks (*ENR* Oct. 23, 1947, vol. p. 565).

The court held that the union's action did not constitute a secondary boycott designed to prevent the company from doing business with Ebasco, within the meaning of the Taft-Hartley measure.

K. R. MacKinnon elected president of Ebasco

Kenneth R. MacKinnon has been elected president of Ebasco International Corp., New York City. Born in New Glasgow, N. S., Mr. MacKinnon was graduated from McGill University in 1909. In the succeeding four years he was engaged in the construction of hydro-electric power stations in Canada, and spent one year in England and Sweden inspecting hydro-electric machinery. In World War I, he served in the Signal Corps of the Canadian Army, rising from private to captain in France. Upon discharge he became associated with Nebraska Power Co. in Omaha.

In 1930 Mr. MacKinnon transferred to Electric Bond & Share Company as Assistant Operating Sponsor for utility properties located in Minnesota, Utah and Idaho.

Construction information committee organized

Formation of the Construction Industry Information Committee, with offices in Washington, D. C., to inform the public about the performance and progress of the building industry has been announced by David S. Miller, president of the Producers' Council. Melvin H. Baker, president of the National Gypsum Co., Buffalo, N. Y., has been appointed chairman of the committee. More than 130 building materials and equipment companies are participating in the program.

The committee will make studies to determine the current status of the building industry to show the progress the industry is making in meeting the housing shortage and other problems.

Canal break curtails Nebraska power

A break in the canal bringing waters of the North Platte River to the regulating reservoir of the Platte Valley Power and Irrigation District's plant at North Platte, Neb., last week caused curtailment of power deliveries throughout the state.

The canal break, occurring at a point where the canal crosses a canyon, flooded farmlands and caused a partial shutdown of the power plant. This cut in power was aggravated by the fact that the power plants of the second of three power projects integrated into Nebraska's "little TVA" on the Loup River at Columbus and Genoa were shut down by heavy ice. Consumers were asked to cut down their use until the break could be repaired.

Ice formation perils Chicago water supply

Formation of frazil ice that completely shut off the intake ports at the Wilson Avenue Crib in Lake Michigan Jan. 29 threatened Chicago, Ill., with its most critical water shortage.

More than 1,000,000 residents of the city were affected by the stoppage before dynamite charges broke up the ice formation after a three-hour stoppage of the pumps drawing water from the crib. The crib is nearly three miles offshore. The lapse in normal pumping caused the city's Board of Health to urge boiling of all drinking water in the area when water service was resumed. Although steam boilers in buildings in the area affected had to be shut off for lack of water, no serious accidents were reported.

MEN AND JOBS

Carl Gardner has become executive director of the Chicago Plan Commission, succeeding **H. E. Kincaid**, who has resigned to form Community Planners, Chicago, with **George A. Hutchinson**, registered architect, formerly on the staff of the plan commission. Gardner has been director of the planning division for the City Plan Commission for the last three years. The new firm will engage in consulting practice in city planning and architecture. Kincaid remains as a member of the Chicago Zoning Board of Appeals.

D. Greer Johnson, Jr., of Asheville, N. C., has been appointed project engineer to supervise street improvements in that city. Formerly he was an engineer with the North Carolina State Highway Commission, and served overseas with a Marine Corps engineering unit. He obtained his civil engineering degree from the University of North Carolina in 1931.

John A. Goode, Asheville, N. C., appointed State Highway Commissioner for the tenth district in 1945 has resigned. **D. Reeves Noland** of Waynesville, N. C., has been appointed to succeed him.

Ogden C. Wilkerson, of Durham, N. C., for the last six and a half years regional engineer at San Juan, Puerto Rico, in charge of all Farm Security Administration construction there and in the Virgin Islands, has become chief engineer in charge of all rural construction for the Venezuela Basic Economy Corporation at Caracas, Venezuela. Before going to Puerto Rico he was with the engineering department of the FSA at Raleigh, N. C., for six years.

Proctor Noyes, for the last five years commissioner of design and construction, and plans coordinator, Cleveland, Ohio, has been appointed director of that city's regional planning commission. **James Lister**, formerly freeway expediter for the city, succeeds Mr. Noyes as commissioner of design and construction.

Louis F. Racine has been appointed chief engineer of the Monon Line, replacing **J. C. Bussey**, who has resigned.

H. Peyton Howard, Jr., has been appointed chief engineer of the Chesapeake & Potomac Telephone Co., Washington, D. C. Formerly general buildings and equipment engineer, he is a graduate of the U. S. Naval Academy. He joined Chesapeake & Potomac in 1925 as a student engineer.

W. I. Jefferies has been named chief engineer of the Arlington County, Va., water department. He had been an engineer in the Alexandria Health Department.

Richard M. Wirt, graduate of West Virginia University in civil engineering and connected with the Pennsylvania highway department before going to Washington, D. C., has been named director of public service at Arlington, Va., succeeding **A. T. Lundberg**, now county manager. He will coordinate the water, sanitation, highway, planning surveys, public buildings and equipment divisions in the county.

Donald Collis, who had been assistant district engineer of the Canadian Pacific Railway at St. John, N. B., has been named engineer for the subsidiary Dominion Atlantic Railway, Kentville, N. S., succeeding R. H. Stenhouse, retired. Mr. Collis has been on the engineering staff about 20 years. At St. John he is succeeded by **R. Coburn**, of Trenton, Ont., lately a transit man. Mr. Stenhouse joined the C.P. as a chainman 38 years ago, at Winnipeg, Man.

Sol Pincus, formerly for 8 years with the U. S. Public Health Service and from 1935 to 1947 deputy commissioner and senior sanitary engineer with the New York City Department of Health, has opened offices at 11 Park Place, New York 7, N. Y., for the practice of sanitary engineering.

Charles B. Cox of Chilton County has been employed by the Alabama State Highway Department to study possible routes for secondary roads, to determine whether secondary roads can be built on existing roadbeds.

Clifford Irving has been appointed superintendent of the bureau of sewage disposal of Schenectady, N. Y. He has been chief sewage plant operator.

Harry H. Denning, superintendent of streets in Wakefield, Mass., who was given a military leave of absence in 1942, has been reappointed. Formerly he was a civil engineer for Ver-

Comdr. Edmund M. Shanley, USNR (right), Berkeley, Calif., accepts congratulations on his receipt of Bronze Star Medal from Capt. Kendal B. Bragg, 12th Naval District public works officer, representing commandant of district. Medal was awarded "for meritorious service as planning officer of the Base and Construction Division, Service Force, Seventh Fleet". During his four years active duty with the Civil Engineer Corps he served as resident officer in charge of construction contractors, Navy Yard, New York; with the staff of Commander Service Forces, Seventh Fleet and the Naval Operating Base, Leyte Gulf. A graduate of University of California, he is now employed by Fred J. Early, general contractor, San Francisco.

U. S. Army Signal Corps photo

Lieut. Col. William F. Cassidy recently became assistant to the president, Mississippi River Commission, Lower Mississippi Valley division. He serves as General Crawford's assistant in charge of operations. He is a West Point graduate, 1931, and took his masters degree at the State University of Iowa in 1934 and later he studied at the Engineers School, Fort Belvoir, Va. In May 1943, he was made C. O. of the 21st Engineers Aviation Regiment. In Italy he was in charge of construction of all American airfields in east Italy. After the war he served as deputy chief and later as chief of the plans and training division, Military Operations of the Office of the Chief of Engineers, Washington, D. C.

mont, directing construction of roads and bridges. From 1922 to 1924 he was with the Massachusetts Department of Public Works on construction of drainage and bridges, and from 1924 to 1932 with the Metropolitan District Commission on drainage projects and layout work.

Following **Charles L. Wartelle's** declination of reappointment as city engineer at Seattle, Wash., because of ill health, the city council has named him consultant to the city engineering department, a new position.

Orio A. Ewing, construction engineer, has joined the executive staff of the Corry-Jamestown Mfg. Corp., Corry, Pa., to supervise construction of the firm's new plant. He was with the engineering firm of Norris and Elliott for five years.

David Mann has been appointed director of public works of Niagara Falls, N. Y., and **Fred V. H. Piper** director of the city water department. **Robert H. Robinson** and **Thomas Heath** have been named deputy directors of public works.

Appointment of **Lewis W. Graves,** of Philadelphia, as head consulting engineer of the Pennsylvania Department of Health has been announced.

Gates, Moe and Weiss, consulting engineers, Milwaukee, Wis., announce that **R. O. Papenthien,** is now associated with them. Prior to graduation from the University of Minnesota in 1921, Mr. Papenthien served in the 107th Engineers of the 32nd Division as master engineer, senior grade. Re-entering the service in the Corps of Engineers in 1942, he was area engineer in charge of construction of air and army bases in Newfoundland and is now a lieutenant colonel in the Engineers' Reserve.

Arthur C. Jenkins has resigned as general consultant and transportation manager of Key System Transit Lines, Oakland, Calif., to be a consulting engineer in San Francisco. A civil engineer and a graduate of the University of California, Jenkins was formerly vice-president and general manager of the San Francisco Gray Line and associated companies. During the war as a commander in the Navy he was on the personal staff of the Commandant of the 12th Naval District in charge of all automotive and personnel transportation within the district. Before that time he was transportation research engineer and examiner for the California public Utilities Commission, which he joined in 1931.

Carlton M. Roberts, director of public works and city engineer of Asbury Park, N. J., has been named Fort Lauderdale, Fla., city manager.

Charles J. Hyde has resigned as city engineer in Kent, Ohio, to work for Harry Miller, Suffield, Ohio, contractor.

H. N. Sutton, special projects engineer for Charlotte, N. C., has been named chief of the city building inspection division, succeeding B. A. Skinner, resigned. Sutton has been with Charlotte in various engineering capacities since 1935, and prior to that was with the Portland Cement Association and the S. C. Highway Department.

R. J. Dustan (left) is the Canadian National Railways terminal engineer on the construction of the new car ferry terminal at Cape Tomentine, N. B., Canada, being built for the Dominion Department of Transport to accommodate the new ferry "Abegweit". Victor Rice (right) is resident engineer for the contractor, the Canadian Dredge and Dock Co. Ltd.

Studying plans of the Herbert Lowell Dillon gymnasium for Princeton University, are Joseph H. Sullivan (right) and William Touissant, respectively superintendent and engineer for the Matthews Construction Co.

W. J. Gooding (left), bridge engineer for the South Carolina State Highway Department, recently began his twenty-seventh year with that organization, and J. M. Martin, construction engineer, is serving his twenty-fourth year.

Although he spends most of his time out in the field, W. K. Beckham, maintenance engineer for the South Carolina State Highway Department, also pays close attention to office work that will reduce maintenance expenditures.

A major South Carolina bridge job gets the attention of Salvador La Torre (left), resident engineer for the state highway department, and J. C. Garrison, general manager for McMeekin Construction Co., Cheraw, S. C., the foundation contractor.

ENGINEERING SCHOOL NEWS

Endowment of $100,000 for construction engineering at North Carolina—New engineering building at Buffalo

Directors of the Carolinas Branch of Associated General Contractors of America have announced that a $100,000 endowment fund for construction engineering at North Carolina State College, Raleigh, N. C., will be raised, and that it will be used mainly for augmenting low salaries of teaching personnel in order to attract able instructors.

The fund, according to Robert Patton of Charlotte, N. C., executive secretary of the Carolinas Branch, will be administered by the North Carolina Engineering Foundation, an educational corporation of representative engineers and contractors.

Patton said that the board of directors of the Carolinas Branch, in approving the foundation for North Carolina State College, also voted to look with favor on the establishment of a similar fund for a state-supported school in South Carolina.

Oleg Yadoff, a former professor at the Sarbonne in Paris, has been appointed research associate in civil engineering at Columbia University. He is a graduate of the University of Grenoble. He has served as consulting engineer to the French Air Minister, the Interallied Military Engineering Group and the United States Army. At Columbia he will be associated with Prof. Boris Bakhmeteff in research on projects involving measurement of low fluid velocities and turbulence.

A New England School Science Council was created at a recent meeting held at Harvard University the object of which is to sponsor a series of exhibitions in New England to encourage science as a career.

The Burlington Foundation, a charitable trust established by Burlington Mills of Greensboro, N. C., has given $15,000 to the engineering foundation at North Carolina State College.

Construction of an east wing for the engineering building at the University of Buffalo, N. Y., has been completed and soon will be occupied. It was built in a record time of four months. Construction of the west wing is about to begin, and additional new building projects are under way. The total cost of the engineering building and its equipment will exceed $1,000,000. Established two years ago, the School of Engineering has 1,288 students.

***Classrooms With View**—Now in service at the University of Miami, Fla., is a new classroom structure, 600 ft. long, which includes an air-conditioned lecture hall and 40 classrooms. The rigid reinforced-concrete frame was designed to permit the long galleries along the west side to be cantilevered far beyond the wall. Metal sunshades are hung at the ends of these cantilevers, and on the east side, metal fins prevent entrance of the sun's rays after 9 a.m. Exterior of the structure is mostly exposed concrete, all window sash is aluminum, and classroom floors are asphalt tile. The building was built by the university's own construction department, and Robert Law Weed and Marion I. Manley did the architectural work.*

August Klein dies; was Stone & Webster office

August C. Klein, 60, vice-president and engineering manager of the Stone & Webster Engineering Corp., who supervised the engineering design of the electromagnetic uranium separation plant at Oak Ridge, Tenn., died Feb. 3, in Jamaica, B. W. I.

A 1908 graduate of Stevens Institute of Technology, Mr. Klein had been engaged in engineering work continuously since then, except for his service in the Ordnance Department of the U. S. Army in the first world war. He joined Stone & Webster at Boston, Mass., after that war.

In 1945 he became engineering manager, and a year later, vice-president.

River, harbor group names new officers

W. P. Feeley, president of the Great Lakes Dredge & Dock Co., of Chicago, Ill., has been elected president of the River and Harbor Improvement Association of Washington, D. C.

Other officers elected include: P. G. Connell, president of FitzSimons & Connell Dredge & Dock Co., Chicago, vice-president, and P. D. Miller, vice-president of Dunbar & Sullivan Dredging Co., director.

FHA gets new funds for mortgage insurance

President Truman has made available to the Federal Housing Administration the remaining $500,000,000 of mortgage insurance Congress recently provided under Title VI of the National Housing Act.

On Dec. 27, 1947, Congress passed a bill that increased the authorization under Title VI by $750,000,000 with $250,000,000 made immediately available and the rest to be made available at discretion of the President (*ENR* Jan. 8, vol. p. 29). The President has now added this amount to the previous authorizations.

During the past several months, new construction commitments for mortgage insurance under the emergency veterans housing program have been in the neighborhood of $58,000,000 weekly. In the last few weeks this volume reached the unprecedented total of about $66,500,000 weekly. A substantial portion of the commitments have been for rental housing work.

In using the new authorization, FHA plans to place added emphasis on rental housing projects, according to Commissioner Franklin D. Richards.

OBITUARY

John H. Lewis, 72, for 5 years mayor of Miami Beach, Fla., and former engineer of many large buildings projects in that city, died Jan. 26. Mr. Lewis influenced Carl G. Fisher to develop Miami Beach. He served as chief engineer for Mr. Fisher, dredging sand from the bay to raise the land level, and was supervising engineer for the erection of many large hotels, homes, business units, polo grounds and golf courses in the Miami-Miami Beach area.

Willard W. Troxell, 54, for seven years chief of the engineering laboratories of the Glenn L. Martin Co., died in Baltimore, Md., Jan. 27. He was a graduate of Cornell University, at Ithaca, N. Y.

W. Stanton Gray, 70, engineer in the New York State Highway Department for 35 years till retirement in 1943, died Jan. 30 in Utica, N. Y.

Frank Ross Goulding, Sr., civil engineer for the Central of Georgia Railway Co., died Feb. 1 in Savannah, Ga. He had been with the railroad for 33 years and at the time of his death was connected with the bridge construction and maintenance department.

William E. Joor, Sr., 71, a building, designing and construction engineer, died in Houston, Tex., Jan. 27. He was a graduate of Tulane and a World War I veteran.

Gilbert George Hall, 62, died in Reno, Nev., Dec. 19. He was senior planning technician in the office of the Regional Planning Engineer, Washoe County, Nevada. He began his career in railroad engineering which took him to the Pacific Northwest where he later engaged in private practice. During World War I he served overseas in the Engineer Corp as a first lieutenant. Between wars Mr. Hall spent a number of years in the Philippine Islands, later returning to railroad work in California. During World War II he served as civilian area engineer at the Sierra Reserve Ordnance Depot, Herlong, Calif.

Harry T. Daniels, 62, a division engineer in the design division of the E. I. duPont de Nemours and Company, Inc., died on Jan. 16 in Wilmington, Del. Mr. Daniels went to Wilmington in 1936 and became an assistant project engineer in the design division in 1940. The following year he was named project engineer, later an assistant supervising engineer.

Ervin J. Miller, 60, chief bridge engineer for the Minnesota highway department, died in Minneapolis, Jan. 21. Receiving his civil engineering degree from the University of Minnesota in 1911, for several years he was employed in engineering work for the Minneapolis park board; was an instructor at the university's college of engineering for the student army training corps from 1917 to 1919; and as a bridge engineer for Hennepin County from 1919 to 1921. In 1933 he was on special bridge assignment for the state highway department, and in 1939 was chief bridge engineer, the position he held until his death.

Edward P. Flannery, 70, construction engineer and president of John N. Gill Co. Inc., Philadelphia, Pa., builders, died Jan. 24 at his home in Wayne, Pa.

Otis Weeks, retired chief engineer for the Salt Lake division of the Southern Pacific Railroad Co., died Jan. 7 in Ogden, Utah. A graduate of the engineering school of the University of Nebraska, Mr. Weeks had served in engineering capacities with Boston & Maine, Maine Central, Union Pacific and Grand Trunk Pacific railroads, and Utah Copper Co., prior to joining Southern Pacific in 1911. He retired in 1940.

MAJOR MEETINGS

Associated Equipment Distributors, 29th annual meeting, Edgewater Beach Hotel, Chicago, Ill., Feb. 15-19.

U. S. Conference of Mayors, annual conference, Waldorf-Astoria Hotel, New York, N. Y., Feb. 16-18.

National Association of Home Builders, Stevens and Congress Hotels, Chicago, Ill., Feb. 22-26.

American Concrete Institute, annual convention, Shirley-Savoy Hotel, Denver, Colo., Feb. 23-26.

Ontario Good Roads Association, 46th annual meeting, Royal York Hotel, Toronto, Ont., Feb. 24-25.

Association of Highway Officials of North Atlantic States, 24th annual meeting, Hotel Traymore, Atlantic City, N. J., March 3-5.

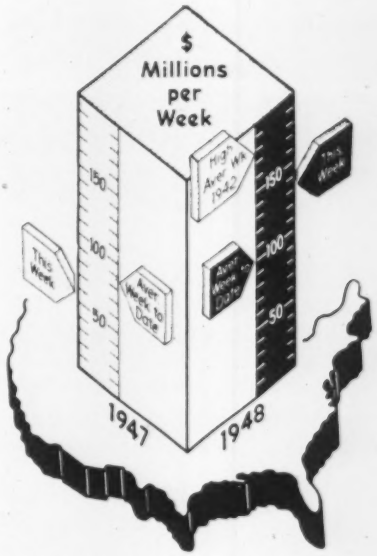
Mississippi Valley Conference of State Highway Departments, Edgewater Beach Hotel, Chicago, Ill., March 11-13.

American Concrete Pipe Association, Hotel Roosevelt, New Orleans, La., March 12-13.

American Railway Engineering Association, Palmer House, Chicago, Ill., March 16-18.

Chicago Technical Conference, Stevens Hotel, Chicago, Ill., March 22-24.

CONSTRUCTION ACTIVITY



As Reported this week to *Engineering News-Record*

CONTRACT VOLUME

Continental U. S. Only
(Thousands of Dollars)

	Week of Feb. 12 1948	Cumulative 1948 (7 wks.)	Cumulative 1947 (7 wks.)
Federal	$32,030	$123,633	$56,568
State & Mun.	33,185	233,181	149,107
Total Public.	$65,215	$356,814	$205,675
Total Private	68,319	342,488	391,619
U. S. Total.	**$133,534**	**$699,302**	**$597,294**

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Dollar Volume (Thousands)

Type of Work	This Week	Cumulative 1948 (7 wks.)	Cumulative 1947 (7 wks.)
Waterworks ...	$1,076	$27,429	$16,681
Sewerage	1,587	18,553	13,583
Bridges	2,415	23,019	16,037
Highways	17,475	89,134	58,134
Earthwork, Waterways	3,097	64,624	10,024
Buildings, Public	23,951	103,971	62,637
Industrial ...	29,603	97,832	112,986
Commercial ..	28,912	214,356	252,061
Unclassified ...	19,418	60,384	55,151

NOTE: Minimum size projects included are: Waterworks and waterway projects, $28,000; other public works, $50,000; industrial buildings, $68,000; other buildings, $250,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1948 (7 wks.)	Cumulative 1947 (7 wks.)
NON-FEDERAL	$316,586	$134,202
Corporate Securities	143,549	11,968
State and Municipal	173,037	122,234
**Total Capital ..... **	**$316,586**	**$134,202**

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost..	Feb.'48	436.89	210.01
Building Cost	Feb.'48	329.71	178.23
Volume	Jan.'48	175	77

CONSTRUCTION REPORTS

Bids Asked—Low Bidders—Contracts Awarded

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager *J. A. MAHONEY, Reports* *E. R. BIGGERSTAFF, M. R. ROESSLER, Statistics*

WATER SUPPLY

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked February 16

Md., Towson—Baltimore Co. Comn., Court House, Contr. 122 S & W., 12,052 lin. ft. 6- to 12-in. watermains, 1,703 lin. ft. 8- to 12-in. sewers, valves, fire hydrants, manholes, house connections, etc., 1st, 2nd, 3rd, 8th, 9th, 12th, 13th, and 14th Dists. Plans deposit $10. Nathan L. Smith, Towson, ch. engr. CD 2/7/45—ENR 2/22/45.

Bids Asked February 24

Mo., Gideon—City, c/o City Clk., Gideon, imprv. WW, incl. artesian well, pump and pumphouse, steel tank on tower, approx. 22,000 ft., 2- to 4-in. watermains, hydrants, valves, etc. Approx. $110,000. Russell & Axon, 408 Olive St., St. Louis, Zone 2, engrs.

Bids Asked March 2

†**Kansas**—U. S. Eng., 601 Davidson Bldg., Kansas City, 8, Mo., pressure relief well sys., Station 79 plus 00 to Station 194 plus 00, incl. wells, discharge pipes, and piezometer tubes on right bank Missouri River adjacent to Landward toe of Fairfax, Jersey Creek Levee near Fairfax Airfield and Phillips Petroleum Co. Refinery, Kansas City, Kan., Serial No. W-23-028-eng-48-191. Extended date. CD 1/27—ENR 1/29.

Miss., Columbus — City, WW imprvs., incl. renovating filtration plant, 1 m.g. water tank, raw water intake, mains extens. $650,000. Polglaze & Basenburg, Empire Bldg., Birmingham, Ala., engrs. CD 1/7—ENR 1/15.

Bids Asked March 10

Fla., Quincy—City, WW imprvs., $200,000. Plans deposit $25. Wiedeman & Singleton, C. & S. National Bank Bldg., Atlanta, Ga., engrs. 10/31/46—ENR 11/14/46.

Pa., Polk—Dpt. Property & Supplies, 18 and Herr Sts., Harrisburg, altering water supply sys. at Polk State School. $75,000. Plans deposit $7.50. H. F. Lenz, Johnstown, engr. CD 11/7/46—ENR 11/28/46.

Bids Asked April 7

Mich., Midland—City, City Hall, WW addn., 4 m.g.p.d. capacity, consisting spiractor and chemical feed room, chemical store room, laboratory, conveyor, and garage room and waterpiping, equip., filling, grading, etc. Plans deposit $20 refundable.

LOW BIDDERS

Md., Hyattsville—Washington Suburban Sanitary Comn., Hamilton St., Hyattsville, **Feb.** 3, approx. 8,300 ft. 6- to 12-in. c.i. watermains, 6,200 ft. 6 and 8 in. plain concrete or vitr. sewers and sewer house connections, Indian Spring Manor and vicinity, Contr. 413 W & S, from Leo Butler Co., 8416 Georgia Ave., Silver Spring. **$46,742.** CD 1/26—ENR 1/29.

Tex., Waco—McLennan County Water Control & Imprvt. Dist. 1, 1102 Lewis St., Jan. 27, WW sys. imprvs., extens., from Wahrmund-Logan Co., 422 Hays St., San Antonio. **$257,706.** CD 1/6—ENR 1/15.

Wyo., Cody—City, Paul Stock, mayor, Jan. 29, Schedule 1, addns., modifications water treatment plant, consisting of chemical and filter bldgs., with rapid sand filters, wet well, office, laboratory, pump and storage facilities, and misc. appurtenant work, from James B. Kenny, 582 High St., Denver, Colo. **$121,196.** CD 1/19—ENR 1/22.

CONTRACTS AWARDED

●**Fla., Orlando**—Orlando Utilities Comn., Orlando, water and power plant, structural work, to Ivy H. Smith Co., 1525 San Marco Blvd., Jacksonville, **$961,000*****power plant piping, to Pittsburgh Pipe & Equipment Co., c/o owner, **$379,000*****water plant piping, to A. H. Guion & Co., Wilkinson Blvd., Charlotte, N. C., **$191,000*****electrical work to Satchwell & Joseph, c/o owner, **$261,000*****stacks, to J. J. Finnigan Co., 455 Means St., N. W., Atlanta, Ga., **$43,000.** Grand total $1,835,000. Bids 1/27, CD 1/13—ENR 1/15.

N. C., Charlotte—City, Henry A. Yancey, mgr., W. W. imprvs., 36 in. raw water line from Catawba River Pump Station to Hoskins Reservoir, to Blythe Bros. Co., 424 S. Brevard St. **$557,900.** Bids 1/22, awarded 1/28. CD 1/28—ENR 2/5, under LB.

Tex., San Antonio—City Water Bd., 106 W. Market St., drilling, casing, developing artesian water supply well, 1,000 ft. deep, 24 in. bore, to Layne-Texas Co., Ltd., 6931 Harrisburg St., Houston. **$34,070.** Bids 1/1. CD 10/5/45—ENR 10/18/45.

Wis., Fall Creek—Village, WW sys., watermains, to Case Machine Co., Warren. **$56,948.** Bids 1/20. CD 1/5—ENR 1/8.

Wis., Milwaukee—City, watermains N. Milwaukee St., to Koch & Bonness, 1409 N. 27 St., Zone 8. **$36,533.** Bids 1/27. J. P. Schwada, city engr.

SEWERS, WASTE DISPOSAL

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked February 16

Ont., Chatham—City, R. D. Steele, mayor, 3,210 ft. 48 and 54 in. storm sewer in Industrial St. About $100,000. T. M. S. Kingston, Chatham, city engr. CD 10/15/44—ENR 10/19/44.

Bids Asked After February 16

†**Kansas**—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., installing 2,500 ft., 4- to 8-in. clay sewer pipe, 2,800 ft. 1½ and 4 in. water line, electrical sys., incl. street lights, vicinity of St. Francis, Bonny Dam Government Camp, Missouri Basin Proj.

Bids Asked February 19

Florida—State Hy. Dpt., Tallahassee, storm sewerage sys. in Sulphur Springs, Road 45, S.P. Job No. 1004-901, Hillsborough Co. Plans deposit $5. E. C. DeGarmo, hy. engr.

Bids Asked February 20

Miss., Ripley—City, sewer line extens., disposal plant. Plans deposit $20. Winchell C. Webb, Barnett-Madden Bldg., Jackson, engrs.

Bids Asked February 24

Tex., Dallas—City, Earl Goforth, secy., sewage, enclosing Mill Creek, Haskell to Live Oak St. in a concrete conduit. $400,000. Myers & Noyes, Tower Petroleum Bldg., consult. engrs. CD 12/13/45—ENR 12/27/45.

Bids Asked March 2

Mo., Owensville—City, J. R. Fisher, mayor, Owensville, sewer extens., imprvs., in 4 sewer dists. $60,000. Russell & Axon, 408 Olive St., St. Louis, Zone 2, engrs. CD 12/24—ENR 1/1, under LB.

PROJECTS COVERED

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks $28,000; other public works $50,000; industrial buildings $68,000; other buildings $250,000.

Classes of Construction

(Name in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges
Streets & Roads
Earthwork, Waterways
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings
Unclassified

Stages Reported

PROPOSED WORK: Including appointment of engineers or architects.

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.;

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Symbols and Abbreviations Include:

† Federal Government
● Project of $1,000,000 or over.
ENR Engineering News-Record
CD Engineering News-Record Construction Daily

Bids Asked March 4

†**Nebraska**—U. S. Eng., 1709 Jackson St., Omaha, Zone 2, constructing Burt-Izard Sewers and pumping stations, Unit V, Sect. 2, at Omaha, Serial No. W-26-066-eng-48-311. Extended date. CD 1/28—ENR 2/5.

Bids Asked March 30

†**Wyo., Sheridan**—Veterans Admin., Bldg. T-1A, Denver Federal Center, Denver, Colo., sewerage disposal plant, consisting sewerage control house, digester and primary sedimentary basins, pump house and secondary sedimentation basins, trickling filter, sledge bed, mechanical screen, dosing tank and one chlorination chamber, etc. Proj. 13-0441, Spec. DE-3.

LOW BIDDERS

Calif., Oakland—East Bay Municipal Utility Dist., 512 16 St., Jan. 28, intercepting sewer from Albany to Berkeley, Spec. SD-7, from Elmer J. Freethy, 1432 Kearney St., El Cerrito. **$213,752.** CD 1/16—ENR 1/22.

Conn., Stratford — Town, H. Flood, mgr., Town Hall, rejected bids Jan. 20, sewage disposal plant, garage and fence. **$794,650.** CD 1/26—ENR 1/29, under LB.

Ill., Mascoutah—City, Raymond Pfeifer, mayor, Mascoutah, rejected bids Jan. 27, 23,500 ft. 8 in. sewer extens., auxiliaries, appurtenances. L. B. **$89,600.** Will readvertise. CD 12/24—ENR 1/1.

Md., Towson—Comrs. Baltimore Co., Court House, Jan. 26, Gwynns Falls Intercepting Sewer, Contr. 114-S, from Utilities Constr. Co., Inc., 212 Washington Ave. **$794,865.** CD 1/20.

Ore., Sandy—City, City Hall, municipal sewerage sys. and sewage treatment plant, from G. T. McDermott, Oswego. **$92,465.** Est. $103,550. H. L. Gilbert, Governor Bldg., Portland, engr.

Tex., Houston — City, M. H. Westerman, secy., Jan. 28, Fowler St. discharge sewer line sys., 36 in. mono rein.-con. 21 in. rein. pressure (concrete) type, from Viking Constr. Co., National Standard Bldg. **$99,088.** Est. $130,000. CD 1/21.

Tex., Waco—McLennan County Water Control & Imprvt. Dist 1, 1102 Lewis St., Jan. 27, Part B, sewerage imprvs., from R. T. Swilling & Son, Whitney. **$426,055.** CD 1/9—ENR 1/15.

Wash., Seattle—University of Washington, Henry Bldg., Zone 1, Jan. 27, sewer between women's gymnasium and Montlake Blvd. from Scheumann & Johnson, Lloyd Bldg., Zone 1. **$145,480.** L. Bouillon & Assoc., 1411 4 Ave. Bldg., Zone 1, engrs.

Wash., Sedro Woolley—City, City Hall, Jan. 26, sanitary and storm sewers, from Matt Malaspina & Co., 1901 23 Ave., S., Seattle. **$329,249;** sewage treatment plant, from Utility Constr. Co., Puget Sound Bank Bldg., Tacoma. **$150,659.** Est. $360,000. CD 1/14.

CONTRACTS AWARDED

Tex., San Angelo—City, sanitary sewers, force account. **$60,000.** J. P. Burden, city engr. CD 12/14/45—ENR 12/27/45.

Tex., San Angelo—City, storm sewers, force account. **$55,000.** J. P. Burden, city engr.

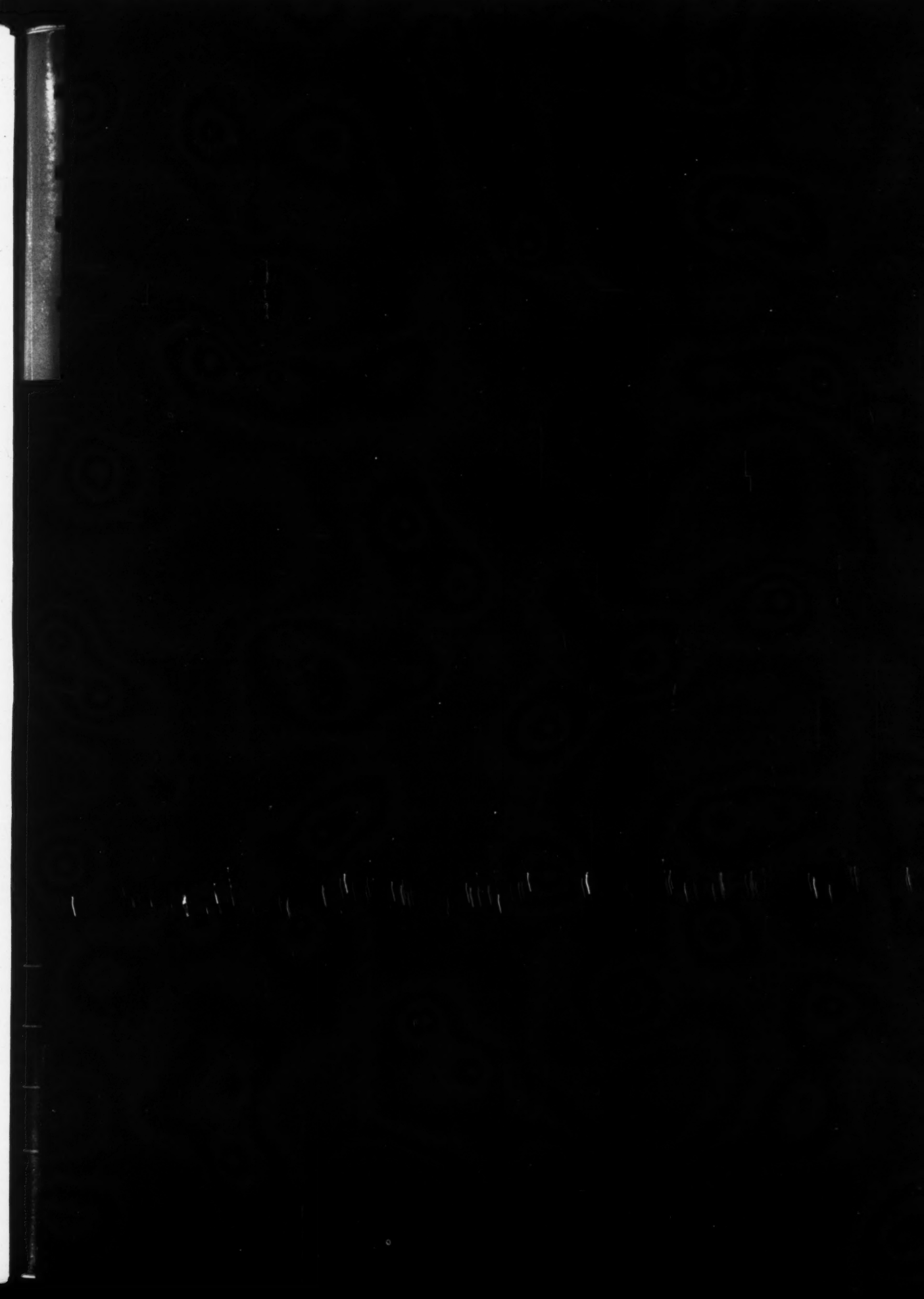
Wash., Yakima—City, City Hall, storm sewers in southwest sect. city and modern addn., to State Constr. Co., 1750 19 Ave. S., Seattle. **$77,693.** CD 7/26/45—ENR 8/9/45.

BRIDGES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked February 17

New York—Public Service Comn., 233 Broadway, New York, sinking test pits in connection with grade crossing eliminations the Staten Island Rapid Transit Ry. Co. Grant City to Bay Terrace, along Railroad Ave. and Park Pl. between Emmet and Jefferson Aves., Richmond Boro. Plans deposit $5; adv. ENR 2/5. CD 12/16/43—ENR 12/23/43, under N. Y., Grant City (Staten Island).

Ohio — **State Hy. Dpt.**, Columbus, repairing sections concrete arch bridge over Chagrin River on U. S. 20, Lake Co.; reconstructing bridge on S. R. 99, Huron and Medina Counties, $5,520; reconstructing steel beam bridge over Tuscarawas River on U. S. 21, Tuscara-